

***What Is Claimed Is:***

1. A method of addressing a subsequent failure in a telecommunications network that has experienced one or more previous failures, comprising the steps of:

- 5 (a) detecting the subsequent failure;
  - (b) identifying a failed facility type that caused the subsequent failure;
  - (c) determining whether a protect channel is restoring one of the one or more previous failures; and
  - 10 (d) when it is determined in step (c) that said protect channel is restoring one of the one or more previous failures, sending a notification of the subsequent failure to an optical cross connect switch controller;
- wherein said notification includes said failed facility type that caused the subsequent failure.

15 2. A method of addressing a subsequent failure in a telecommunications network that has experienced one or more previous failures, comprising the steps of:

- (a) receiving a notification of the subsequent failure, wherein said notification includes a failed facility type that caused the subsequent failure;
- (b) determining whether the subsequent failure is restorable via an
- 20 optical cross connect switch; and
- (c) addressing the subsequent failure.

3. The method of claim 2, wherein step (b) comprises the steps of:

- (i) determining whether said failed facility type received in said notification of the subsequent failure is a line failure; and
- 25 (ii) if it is determined in step (i) that said failed facility type is said line failure, determining that the subsequent failure is restorable via said optical cross connect switch.

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4. The method of claim 2, wherein step (b) comprises the steps of:

(i) determining whether said failed facility type received in said notification of the subsequent failure is a module failure;

(ii) if it is determined in step (i) that said facility type is said module failure, determining a previous failed facility type of one of the one or more previous failures that is restored on a protect channel; and

(iii) if it is determined in step (ii) that said previous failed facility type is a line failure, determining that the subsequent failure is restorable via said protect channel.

5. The method of claim 2, wherein step (b) comprises the steps of:

(i) determining whether said failed facility type received in said notification of the subsequent failure is a module failure;

(ii) if it is determined in step (i) that said facility type is said module failure, determining a previous failed facility type of one of the one or more previous failures that is restored on one of one or more protect channels;

(iii) if it is determined in step (ii) that said previous failed facility type is said module failure and additional previous failures are restored on additional protect channels, repeat step (ii) to determine another previous failed facility type for another one of the one or more previous failures that is restored via another one of the one or more protect channels; and

(iv) if it is determined in step (iii) that said another previous failed facility type is a line failure, determining that the subsequent failure is restorable via said protect channel.

6. The method of claim 2, wherein step (b) comprises the steps of:

(i) determining whether said failed facility type received in said notification of the subsequent failure is a module failure;

(ii) if it is determined in step (i) that said facility type is said module failure, determining a previous failed facility type of one of the one or more previous failures that is restored on a protect channel;

(iii) if it is determined in step (ii) that said previous failed facility type is a module failure, determining that the subsequent failure is not restorable.

7. The method of claim 2, wherein step (b) comprises the steps of:

(i) determining whether said failed facility type received in said notification of the subsequent failure is a module failure;

(ii) if it is determined in step (i) that said facility type is said module failure, determining a previous failed facility type of one of the one or more previous failures that is restored on one of one or more protect channels;

(iii) if it is determined in step (ii) that said previous failed facility type is said module failure and additional previous failures are restored on additional protect channels, repeat step (ii) to determine another previous failed facility type for another one of the one or more previous failures that is restored via another one of the one or more protect channels; and

(iv) if it is determined in step (iii) that said another previous failed facility type is said module failure, determining that the subsequent failure is not restorable.

8. The method of claim 2, wherein step (c) comprises the step of:  
restoring the subsequent failure via said optical cross connect switch.

9. The method of claim 2, wherein step (c) comprises the steps of:  
restoring one of the one or more previous failures that was restored on a protect channel via said optical cross connect switch; and  
restoring the subsequent failure via said protect channel.

10. The method of claim 2, wherein step (c) comprises the step of:  
sending an alarm to a centralized network management center.

11. An apparatus, comprising:  
equipment for terminating a telecommunications span;

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identifying means for identifying a failed facility type of a subsequent failure;

determining means for determining whether a protect channel is restoring a previous failure; and

5 notification means for notifying an optical cross connect switch controller of said subsequent failure.

12. An optical cross connect switch controller, comprising:  
a processor;

10 receiving notification means for enabling said processor to receive a notification of a subsequent failure, wherein said notification includes a failed facility type that caused said subsequent failure;

restoration determining means for enabling said processor to determine whether said subsequent failure is restorable via an optical cross connect switch; and

15 restoration command means for enabling said processor to send a command to restore said subsequent failure via said optical cross connect switch.

13. The optical cross connect switch controller of claim 12, wherein said restoration determining means comprises:

20 failed facility type determining means for determining said failed facility type; and

restoration determining means for determining whether said subsequent failure is restorable using said failed facility type.

14. The optical cross connect switch controller of claim 12, wherein said restoration determining means comprises:

25 failed facility type determining means for determining said failed facility type;

restoration determining means for determining whether said subsequent failure is restorable using said failed facility type;

previous failed facility type determining means for determining a previous failed facility type; and

restoration determining means for determining whether said subsequent failure is restorable using said previous failed facility type.

5 15. The optical cross connect switch controller of claim 12, wherein said restoration command means comprises:

restoration means for restoring said subsequent failure via said optical cross connect switch.

10 16. The optical cross connect switch controller of claim 12, wherein said restoration command means comprises:

previous failure restoration means for restoring one of one or more previous failures that was restored on a protect channel via said optical cross connect switch; and

15 subsequent failure restoration means for restoring said subsequent failure via said protect channel.

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